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Prayer and personal happiness: A study among secondary school students in Australia

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**Abstract**

In order to examine the association between prayer and happiness, a sample of 1,002 students, ranging in age from 12- to 18-years, attending ten non-government secondary schools in Victoria, Australia, completed three measures: the Oxford Happiness Inventory, the short form of the Junior Eysenck Personality Questionnaire Revised, and a single-item measure of prayer affect assessed on a five-point scale. The data demonstrated a significant positive correlation between prayer affect and happiness after taking into account individual differences in sex, age and personality.

*Keywords:* psychology, religion, prayer, happiness, adolescents

### Introduction

In their review of empirical research concerned with the correlates, antecedents and consequences of prayer, ap Siôn and Francis (2009) distinguish between two research traditions: one research tradition is concerned with the *objective* correlates of prayer (including exploring theories concerning the effects of prayer on those for whom others pray), and the other research tradition is concerned with the *subjective* correlates of prayer (including exploring theories about the effects of prayer on those who do the praying). Within this second research tradition, concerning the subjective correlates of prayer, three series of studies (all using single-item measures of prayer) have focused specifically on the part played by prayer in the lives of young people.

The first series of studies conducted among young people has focused on the connection between prayer and purpose in life. In this area, research published by Francis and Burton (1994), Francis and Evans (1996), Francis (2005), and Robbins and Francis (2005) demonstrated that those who pray more frequently reported higher levels of purpose in life than those who never pray or who pray less frequently. This relationship held true after controlling for frequency of church attendance. The second series of studies conducted among young people focused on the connection between prayer and school-related attitudes. In this area, research published by Francis (1992), Montgomery and Francis (1996) and Robbins, Babington, and Francis (2003) demonstrated that those who pray more frequently reported more positive school-related attitudes. The third series of studies conducted among young people focused on the connection between prayer and pro-social attitudes. In this area, research published by Francis and Robbins (2006) and Francis and Robbins (2009) demonstrated that those who pray more frequently reported higher levels of pro-social attitudes. Only one previous study, however, focused specially on exploring the connection between prayer and personal happiness among young people (Robbins, Francis, & Edwards,

2008). After controlling for individual differences in personality, that study found no significant association between personal prayer and happiness. The present study proposes to explore this issue further.

At a theoretical level, there is good reason to posit a connection between prayer and personal happiness, as conceived within a Christian context. For example, according to Psalm 128, 'Happy is everyone who fears the Lord, who walks in his ways.' Similarly, the Book of Proverbs proclaims, 'Happy are those who keep my ways' (Proverbs 8: 32) and 'Happy are those who trust in the Lord' (Proverbs 16: 20). In the New Testament, the words attributed to Jesus in the sermon on the Mount proclaim: 'Happy are those whose greatest desire is to do what God requires; God will satisfy them fully.' In the letter to the Romans, Paul writes, 'How happy are those whose wrongs God has forgiven.'

At an empirical level, there is a developing body of research that has linked religiosity and happiness among students and adults when religiosity has been measured by scales of religious affect and happiness has been measured by the Oxford Happiness Inventory. The connection between a positive attitude toward Christianity and happiness was reported by Robbins and Francis (1996) among undergraduate students in Wales, by Francis and Lester (1997) among undergraduate students in the USA, by Francis and Robbins (2000) among individuals ranging in age from late teens to late seventies in England and Wales, by Francis, Jones, and Wilcox (2000) among three samples of adolescents, young adults and seniors in England, and by Francis, Robbins, and White (2003) among students in Wales. The connection between a positive attitude toward Judaism and happiness was reported among Hebrew-speaking undergraduate students in Israel by Francis and Katz (2002), by Francis, Katz, Yablon, and Robbins (2004) and by Francis, Yablon, and Robbins (2014).

The Oxford Happiness Inventory provides a good test for the connection between religiosity and happiness because this instrument both possesses good conceptual foundations

and achieves good psychometric properties. The Oxford Happiness Inventory was developed by Michael Argyle and his associates (Argyle & Crossland, 1987; Argyle, Martin, & Crossland, 1989). This operationalisation of happiness embraces three components: the frequency and degree of positive affect or joy; the average level of satisfaction over a period; and the absence of negative feelings, such as depression or anxiety. Argyle, Martin, and Crossland (1989) reported an internal reliability of 0.90 using alpha (Cronbach, 1951), and a 7-week test –retest reliability of 0.78. Concurrent validity of 0.43 was established against happiness ratings by friends. Construct validity was established against recognised measures of the three hypothesised components of happiness, showing correlations of 0.32 with the positive affect scale of the Bradburn Balanced Affect measure (Bradburn, 1969), -0.52 with the Beck Depression Inventory, and 0.57 with Argyle's Life Satisfaction Index. Moreover, the Oxford Happiness Inventory is now well-established across a number of cultural and linguistic contexts, including Arabic (Abdel-Khalek, 2006), Chinese (Lu & Lin, 1998), German (Lewis, Francis, & Ziebertz, 2002), Hebrew (Francis & Katz, 2000), Italian (Meleddu, Guicciardi, Scalas, & Fadda, 2012), Japanese (Furnham & Cheng, 1999), Persian (Bayani, 2008), and Portuguese (Neto, 2001). Developed in the 1980s this instrument has stood the test of time and continues to show good psychometric properties across languages and cultures.

The one study that has so far examined the connection between prayer and happiness (a study conducted among undergraduate students), did not employ the Oxford Happiness Inventory, but the Oxford Happiness Questionnaire, an instrument derived from the Oxford Happiness Inventory by Hills and Argyle (2002). This study, reported by Robbins, Francis, and Edwards (2008) found a significant positive correlation between prayer frequency and happiness before controlling for individual differences in personality. After controlling for personality, however, this apparent association vanished. Given that this finding stood out

against the consensus of the other studies reported above (employing the Oxford Happiness Inventory alongside other measures of religiosity), Robbins, Francis, and Edwards (2008) suggested that future research should test the association between prayer and the Oxford Happiness Inventory, questioning whether the Oxford Happiness Questionnaire was really accessing the same construct.

Against this background, the aim of the present study is to examine the association between prayer and personal happiness among a sample of secondary school students in Australia, employing the Oxford Happiness Inventory. In light of the findings reported by Robbins, Francis, and Edwards (2008), the present study will also control for individual differences in personality, drawing on the three dimensional model of personality operationalised through the Eysenckian family of measures (see Eysenck & Eysenck, 1991).

## **Method**

### **Sample**

A sample of 1,002 students, ranging in age from 12- to 18-years, attending ten non-government secondary schools in Victoria, Australia participated in the study by completing a short questionnaire. The survey was conducted during regular classes. Participation was voluntary, anonymous and confidential. Within the three Catholic schools in the study, the participants comprised 298 female students (mean age = 15.4 years,  $SD = 1.8$ ), and 166 male students (mean age = 16.0 years,  $SD = 1.7$ ); within the six Christian community schools in the study, the participants comprised 179 female students (mean age = 15.0 years,  $SD = 1.6$ ) and 190 male students (mean age = 14.9 years,  $SD = 1.6$ ); within the Independent (Anglican) schools in the study, the participants comprised 76 female students (mean age = 15.1 years,  $SD = 1.8$ ), and 93 male students (mean age = 15.0 years,  $SD = 1.6$ ).

### **Measures**

*Happiness* was assessed by the Oxford Happiness Inventory, proposed by Argyle, Martin, and Crossland (1989). This is a 29-item multiple-choice instrument, providing four short statements for each item, intended to distinguish between four incremental steps defined as unhappy or mildly depressed, a low level of happiness, a high level of happiness, and mania. The respondents were asked to ‘pick out the one statement in each group which best describes the way you have been feeling over the past week.’ Scores on the instrument range from 0 to 87.

*Personality* was assessed by the short-form of the Junior Eysenck Personality Questionnaire Revised, proposed by Corulla (1990). This is a 48-item instrument, comprising four 12-item measures of extraversion, neuroticism, psychoticism, and the lie-scale. Each item was rated as a two-part scale: yes and no. Scores on the four measures range from 0 to 12.

*Prayer affect* was assessed by a single item regarding the experience of prayer in ‘normal day-to-day life’, rated on a five point scale: very low, low, moderate, high, and very high. Scores on this measure range from 1 to 5.

### **Data analysis**

The data were analysed by SPSS, employing the following routines: frequency, reliability, correlations, and regression.

### **Results and discussion**

- insert table 1 about here -

Table 1 presents the scale properties for the five scales employed in the study (measuring happiness, extraversion, neuroticism, psychoticism, and the lie scale) in terms of means, standard deviation, and the alpha coefficients (Cronbach, 1951). The mean and standard deviation are also provided for the single-item measure of prayer affect. These data



demonstrate that all five instruments recorded internal consistency reliability alpha coefficients well above the threshold of .65 proposed by DeVellis (2003).

- insert table 2 about here -

Table 2 presents the correlation matrix for sex, age, happiness, prayer affect, and the four Eysenckian measures. Three aspects of these data deserve comment, concerning sex differences, age differences, and the correlates of happiness. Regarding sex differences, female students recorded higher scores on the extraversion scale, on the neuroticism scale and on the lie scale, while male students recorded higher scores on the psychoticism scale. These differences are consistent with the broader understanding of these constructs (Eysenck & Eysenck, 1991). There were no sex differences in respect of prayer affect. Regarding age differences, older students recorded lower scores on the lie scale and on prayer affect. There were no age differences in respect of extraversion scores, neuroticism scores, or psychoticism scores. Regarding the correlates of happiness, there was no correlation between happiness scores and sex and a negative correlation between happiness scores and age. Older students recorded a lower level of happiness in comparison with younger students. All four of the Eysenckian scales were significantly correlated with happiness. Higher happiness scores were associated with extraversion (high extraversion scores), emotional stability (low neuroticism scores), tendermindedness (low psychoticism scores), and social conformity (high lie scale scores). Moreover, there was a significant positive correlation between happiness scores and prayer.

- insert table 3 about here -

Table 3 presents the multiple regression model exploring the cumulative prediction on happiness scores of sex, age, extraversion, neuroticism, psychoticism, the lie scale, and prayer, entered in that fixed order. The beta weights demonstrate that both extraversion scores and neuroticism scores function as strong predictors of individual differences in

happiness, with smaller contributions being made by psychoticism scores and lie scale scores. When these personality scores are included in the model, neither sex nor age emerge as significant predictors of individual differences in happiness scores. Within this model, however, prayer continues to function as a significant predictor of individual differences in happiness scores. Higher levels of prayer affect are associated with higher levels of happiness.

### **Conclusion**

This study set out to examine the association between prayer and happiness among a sample of 1,002 students, ranging in age from 12- to 18-years, attending ten non-government secondary schools in Victoria, Australia, employing three measures: the Oxford Happiness Inventory, the short form of the Junior Eysenck Personality Questionnaire Revised, and a single-item measure of prayer affect assessed on a five-point scale. The study was designed to build on the body of research reported by Robbins and Francis (1996), Francis and Lester (1997), Francis and Robbins (2000), Francis, Jones, and Wilcox (2000) and Francis, Robbins, and White (2003) in a Christian context and by Francis and Katz (2002), Francis, Katz, Yablon, and Robbins (2004) and Francis, Yablon, and Robbins (2014) in Jewish context. All of these studies had found a positive association between religious affect and happiness as measured by the Oxford Happiness Inventory. The research question was posed by the aberrant finding reported by Robbins, Francis, and Edwards (2008) who found no association between prayer and happiness as measured by the Oxford Happiness Questionnaire. Robbins, Francis, and Edwards (2008) challenged future research to explore the connection between prayer and scores recorded on the Oxford Happiness Inventory, suggesting that their aberrant finding may have emerged as an artefact of the different instrument employed. Four main conclusions emerge from these data.

The first conclusion concerns the internal consistency reliability of the Oxford Happiness Inventory among this age group. Although originally constructed for use among adults, the alpha coefficient of 0.96 reported by the present study supports the use of this instrument among a younger age group and commends the instrument for future research concerned with the connection between religion and happiness among this age group. The internal consistency reliability of this instrument has remained consistent over the past 25 years and over a range of age groups.

The second conclusion concerns the role of the Eysenckian dimensional model of personality in predicting individual differences both in respect of personal happiness and in respect of prayer affect. The pattern of relationships between personality and happiness and between personality and prayer confirm the importance of taking these variables into account before examining the direct relationship between prayer and personal happiness. Not to control for individual differences in personality in such studies may lead to spurious results.

The third conclusion concerns the connection between prayer and personal happiness among secondary school students. The finding that higher levels of prayer affect are associated with higher levels of personal happiness is consistent: with the theological assertion that, within the Christian tradition, religious devotion leads to happiness; with the broader empirical research among adults connecting religiosity with happiness; and the broader empirical research connecting prayer during childhood and adolescence with a greater sense of purpose in life, with more positive school-related attitudes, and with higher levels of pro-social values. At the same time this finding contradicts the finding of Robbins, Francis, and Edwards (2008) who reported no significant connection between prayer and happiness after controlling for personality. What makes the study reported by Robbins, Francis, and Edwards (2008) different from other studies in that series was the use of the Oxford Happiness Questionnaire in place of the Oxford Happiness Inventory. Further studies

concerned with the connection between prayer and personal happiness are now needed to explore whether the discrepancy between the findings offered by the present study and by the earlier study reported by Robbins, Francis, and Edwards (2008) may be attributed to the different measures of happiness employed (the Oxford Happiness Inventory and the Oxford Happiness Questionnaire), to the different measures of prayer employed (prayer affect and prayer frequency), to the different age groups studied (secondary school students and undergraduate students) or to the different cultural contexts (Wales, UK and Victoria, Australia).

The fourth conclusion concerns the potential implications of these findings for the wider field of the psychology of religious development during childhood and adolescence. Taking the view, often affirmed within the psychological study of religion, that prayer may stand at the heart of personal religion (see James, 1902; Coe, 1916; Capps, 1982; Ap Siôn & Francis, 2009), individuals who pray may be seen to be taking their religion seriously and building their personal relationship with the God in whom they believe. Divergent psychological theories might construe such practices as unhealthy (developing dependent relationships and insecurities) leading to personal unhappiness, or as healthy (developing positive relationships and self-worth) leading to personal happiness. The empirical evidence from the present study places the balance of weight on the healthy rather than on the unhealthy interpretation of the place of prayer within human development. Irrespective of the theological arguments, religious educators may wish to appreciate the practice of prayer as contributing to positive human development in the sense of enhanced happiness and wellbeing.

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Table 1

*Scales and measures*

	N items	alpha	Mean	SD
Oxford Happiness Inventory	29	.96	46.44	13.69
Extraversion	12	.85	9.60	2.55
Neuroticism	12	.82	6.95	2.95
Psychoticism	12	.80	2.99	2.48
Lie Scale	12	.77	3.79	2.33
Prayer	1		2.94	1.34

Table 2

*Correlation matrix*

	Sex	Age	E	N	P	L	Prayer
Happiness	.01	-.08**	.36***	-.34***	-.11***	.21***	.17***
Prayer	.02	-.17***	.00	.02	-.11***	.20***	
Lie scale (L)	.10**	-.07*	-.10**	.01	-.39***		
Psychoticism (P)	-.28***	.01	.08*	-.09***			
Neuroticism (N)	.26***	.03	-.14***				
Extraversion (E)	.10***	-.03					
Age	-.02						

Table 3

*Regression model*

	$r^2$	increase			Beta	$t$	$p<$
		$r^2$	$F$	$p<$			
Sex	.00	.00	0.0	NS	.01	0.3	NS
Age	.01	.01	6.9	.01	-.03	-1.1	NS
Extraversion	.13	.13	143.9	.001	.34	12.2	.001
Neuroticism	.22	.09	112.7	.001	-.31	-11.1	.001
Psychoticism	.25	.02	32.2	.001	-.08	-2.6	.01
Lie scale	.28	.04	48.9	.001	.18	6.2	.001
Prayer	.30	.02	21.7	.001	.13	4.7	.001